



NEWLY REJECTED CLAIMS

110. An isolated nucleic acid molecule comprising a nucleic acid sequence that encodes:

- (a) a polypeptide having the amino acid sequence of SEQ ID NO:2; or
- (b) a polypeptide that comprises a contiguous sequence of at least about 16 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

113. An isolated nucleic acid molecule comprising a nucleic acid sequence that encodes a polypeptide that comprises a contiguous sequence of at least about 16 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

114. The isolated nucleic acid molecule of claim 113, comprising a nucleic acid sequence that encodes a polypeptide that comprises a contiguous sequence of at least about 18 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

115. The isolated nucleic acid molecule of claim 114, comprising a nucleic acid sequence that encodes a polypeptide that comprises a contiguous sequence of at least about 20 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

116. The isolated nucleic acid molecule of claim 115, comprising a nucleic acid sequence that encodes a polypeptide that comprises a contiguous sequence of at least about 25 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

117. The isolated nucleic acid molecule of claim 116, comprising a nucleic acid sequence that encodes a polypeptide that comprises a contiguous sequence of at least about 30 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

118. The isolated nucleic acid molecule of claim 117, comprising a nucleic acid sequence that encodes a polypeptide that comprises a contiguous sequence of at least about 40 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

119. The isolated nucleic acid molecule of claim 118, comprising a nucleic acid sequence that encodes a polypeptide that comprises a contiguous sequence of at least about 50 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

120. The isolated nucleic acid molecule of claim 119, comprising a nucleic acid sequence that encodes a polypeptide that comprises a contiguous sequence of at least about 60 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

121. The isolated nucleic acid molecule of claim 120, comprising a nucleic acid sequence that encodes a polypeptide that comprises a contiguous sequence of at least about 70 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

122. The isolated nucleic acid molecule of claim 121, comprising a nucleic acid sequence that encodes a polypeptide that comprises a contiguous sequence of at least about 80 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

123. The isolated nucleic acid molecule of claim 122, comprising a nucleic acid sequence that encodes a polypeptide that comprises a contiguous sequence of at least about 90 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

124. The isolated nucleic acid molecule of claim 123, comprising a nucleic acid sequence that encodes a polypeptide that comprises a contiguous sequence of at least about 100 amino acids from SEQ ID NO:4, SEQ ID NO:45, SEQ ID NO:47 or SEQ ID NO:50.

133. The isolated nucleic acid molecule of claim 113, wherein said nucleic acid sequence is operatively positioned under the control of a promoter.

134. The isolated nucleic acid molecule of claim 133, further defined as a recombinant vector.

135. The isolated nucleic acid molecule of claim 133, comprised within a recombinant host cell.

136. The isolated nucleic acid molecule of claim 113, wherein said nucleic acid sequence is operatively attached to a second coding region that encodes a selected peptide or protein sequence so that said isolated nucleic acid molecule encodes a fusion protein.